

## Glossary

**1-in-10 Year Drought** A drought of such intensity, that it is expected to have a return frequency of once in 10 years. A drought, in which below normal rainfall has a 90 percent probability of being exceeded over a twelve-month period. This means that there is only a ten percent chance that less than this amount of rain will fall in any given year.

**1-in-10 Year Level of Certainty** Probability that the needs for reasonable-beneficial uses of water will be fully met during a 1-in-10 year drought.

**Acre-foot** The volume of water that covers one acre to a depth of one foot; 43,560 cubic feet; 1,233.5 cubic meters; 325,872 gallons.

**Agricultural Field Scale Irrigation Requirements Simulation (AFSIRS)** A simple water budget model for estimating irrigation demands that estimates demand based on basin specific data.

**Agricultural Self-Supplied Water Demand** The water used to irrigate crops, to water cattle and for aquaculture (e.g., fish production) that is not supplied by a public water supply utility.

**Aquatic Preserve** Water bodies that are set aside by the state to be maintained in essentially natural or existing condition, for protection of fish and wildlife and public recreation so that their aesthetic biological and scientific values may endure for the enjoyment of future generations.

**Aquifer** A portion of a geologic formation or formations that yield water in sufficient quantities to be a supply source.

**Aquifer Storage and Recovery (ASR)** The injection of fresh water into a confined saline aquifer during times when supply exceeds demand (wet season), and recovering it during times when there is a supply deficit (dry season).

**Aquifer System** A heterogeneous body of intercalated permeable and less permeable material that acts as a water-yielding hydraulic unit of regional extent.

**Artesian** When groundwater is confined under pressure greater than atmospheric pressure by overlying relatively impermeable strata.

**Available Supply** The maximum amount of reliable water supply including surface water, groundwater and purchases under secure contracts.

**Average Irrigation Requirement** Irrigation requirement under average rainfall as calculated by the District's modified Blaney-Criddle model.

**Backpumping** The practice of actively pumping water leaving an area back into a surface water body.

**Basin (Groundwater)** A hydrologic unit containing one large aquifer or several connecting and interconnecting aquifers.

**Basin (Surface Water)** A tract of land drained by a surface water body or its tributaries.

**Benthos/Benthic** Macroscopic organisms that live on or in the bottom substrate, such as clams and worms (contrast to plankton and nekton).

**Best Management Practices (BMPs)** Agricultural management activities designed to achieve an important goal, such as reducing farm runoff or optimizing water use.

**Blaney-Criddle** A formula to calculate evapotranspiration (ET) based on mean temperature and number of daylight hours. The Water Supply Department allocates water using a version of the Blaney-Criddle that employs months as time increments. The ‘Modified Blaney-Criddle’ is a variation of Blaney-Criddle, which multiplies the ET from Blaney-Criddle by a coefficient that relates mean air temperature to the growth stage of a crop. Additionally, effective rainfall is calculated using the mean temperature and hours of daylight, the Blaney-Criddle ET, average monthly rainfall and a soil factor. Further calculations consider average rainfall to drought rainfall (1-in-10 year drought). The difference between monthly drought effective rainfall and monthly ET becomes the basis for water allocations.

**Brackish** Water with a chloride level greater than 250 mg/L and less than 19,000 mg/L.

**Central and Southern Florida Flood Control Project (C&SF Project)** A complete system of canals, storage areas and water control structures spanning the area from Lake Okeechobee to both the east and west coasts and from Orlando south to the Everglades. It was designed and constructed during the 1950s by the U.S. Army Corps of Engineers (USACE) to provide flood control and improve navigation and recreation.

**Class I through V Surface Water Quality Standards** As defined by Section 62-302.400, F.A.C., all surface waters in Florida have been classified according to designated use as follows:

- Class I Potable water supplies
- Class II Shellfish propagation or harvesting
- Class III Recreation, propagation and maintenance of a healthy, well-balanced population of fish and wildlife
- Class IV Agricultural water supplies

- Class V Navigation, utility and industrial use

**Commercial and Industrial Self-Supplied Water Demand** Water used by commercial and industrial operations withdrawing over 0.1 million gallons per day from individual, on-site wells.

**Comprehensive Everglades Restoration Plan (CERP)** The implementation of recommendations made within the Restudy, that is, structural and operational modifications to the C&SF Project are being further refined and will be implemented through this Plan.

**Confined Aquifer** Water bearing stratum of permeable rock, sand or gravel overlaid by a thick, impermeable stratum.

**Conservation Rate Structure** A water rate structure that is designed to conserve water. Examples of conservation rate structures include, but are not limited to, increasing block rates, seasonal rates and quantity-based surcharges.

**Consumptive Use** Use that reduces an amount of water in the source from which it is withdrawn.

**Consumptive Use Permit (CUP)** A permit issued by the SFWMD under authority of Chapter 40E-2, F.A.C., allowing withdrawal of water for consumptive use.

**Control Structure** A man-made structure designed to regulate the level/flow of water in a canal or water body (e.g., weirs, dams).

**Demand** The quantity of water needed to be withdrawn to fulfill a requirement.

**Desalination** A process that treats saline water to remove chlorides and dissolved solids, resulting in the production of fresh water.

**District Water Management Plan (DWMP)** Regional water resource plan developed by the District under Ch. 373.036, F. S.

**Districtwide Water Supply Assessment (DWSA)** This document includes water demand assessments and projections, and descriptions of the surface water and groundwater resources within each of the SFWMD's four planning areas.

**Domestic Self-Supplied (DSS) Water Demand** (*Same as Residential Self-Supplied Water Demand*) The water used by households whose primary source of water is private wells and water treatment facilities with pumpages of less than 0.10 million gallons per day.

**Domestic Use** Use of water for household purposes of drinking, bathing, cooking or sanitation.

**Drawdown** The vertical distance a water level is lowered resulting from a withdrawal at a given point.

**Electrodialysis** Dialysis that is conducted with the aid of an electromotive force applied to electrodes adjacent to both sides of the membrane.

**Environmental Resource Permit (ERP)** A permit issued by the SFWMD under authority of Chapter 40E-4 F.A.C. to ensure that land development projects do not cause adverse environmental, water quality or water quantity impacts.

**Estuary** A water passage where the ocean or sea meets a river.

**Evapotranspiration (ET)** Water losses from the surface of water and soils (evaporation) and plants (transpiration).

**Fiscal Year (FY)** The South Florida Water Management District’s fiscal year begins on October 1 and ends on September 30 the following year.

**Flatwoods (Pine)** Natural communities that occur on level land and are characterized by a dominant overstory of slash pine. Depending on soil drainage characteristics and position in the landscape, pine flatwoods habitats can exhibit xeric to moderately wet conditions.

**Florida Administrative Code (F.A.C.)** The Florida Administrative Code is the official compilation of the administrative rules and regulations of state agencies.

**Florida Department of Agricultural and Consumer Services (FDACS)** FDACS communicates the needs of the agricultural industry to the Florida Legislature, the FDEP, and the water management districts, and ensures participation of agriculture in the development and implementation of water policy decisions. FDACS also oversees Florida’s soil and water conservation districts, which coordinate closely with the federal Natural Resources Conservation Service (NRCS).

**Florida Department of Environmental Protection (FDEP)** The SFWMD operates under the general supervisory authority of the FDEP, which includes budgetary oversight.

**Florida Statutes (F.S.)** The Florida Statutes are a permanent collection of state laws organized by subject area into a code made up of titles, chapters, parts and sections. The Florida Statutes are updated annually by laws that create, amend or repeal statutory material.

**Florida Water Plan** State-level water resource plan developed by the FDEP under Section 373.036 F.S.

**Floridan Aquifer System (FAS)** A highly-used aquifer system composed of the upper Floridan and lower Floridan Aquifers. It is the principal source of water supply north of

**Lake Okeechobee** and the upper Floridan Aquifer is used for drinking water supply in parts of Martin and St. Lucie Counties. From Jupiter to south Miami, water from the Floridan Aquifer System is mineralized (total dissolved solids are greater than 1,000 mg/L) along coastal areas and in southern Florida.

**Governing Board** Governing Board of the South Florida Water Management District.

**Groundwater** Water beneath the soil surface, whether or not flowing through known and definite channels.

**Groundwater Heads** Elevation of water table.

**Harm** The temporary loss of water resource functions, as defined for consumptive use permitting in Chapter 40E-2, F.A.C., which results from a change in surface or groundwater hydrology and takes a period of one to two years of average rainfall conditions to recover.

**Hydropattern** The pattern of inundation or saturation of an ecosystem.

**Hydroperiod** The frequency and duration of inundation or saturation of an ecosystem. In the context of characterizing wetlands, the term hydroperiod describes that length of time during the year that the substrate is either saturated or covered with water.

**Indian River Lagoon** Extending for 156 miles from north of Cape Canaveral to Stuart along the east coast of Florida, this lagoon is America's most diverse estuary, home to more than 4,000 plant and animal species.

**Institute of Food and Agricultural Sciences (IFAS)** Agricultural branch of the University of Florida that performs research, education and extension.

**Irrigation** The application of water to crops and other plants by artificial means.

**Lagoon** A body of water separated from the ocean by barrier islands, with limited exchange with the ocean through inlets.

**Lake Okeechobee** This lake measures 730 square miles and is the second largest freshwater lake wholly within the United States.

**Lake Okeechobee SWIM Planning Area** The major basins that are direct tributaries to Lake Okeechobee, including those basins that are hydrologically upstream and/or from which water is presently released or pumped into the lake on a regular basis.

**Levee** An embankment to prevent flooding or a continuous dike or ridge for confining the irrigation areas of land to be flooded.

**Level of Certainty** Probability that the demands for reasonable-beneficial uses of water will be fully met for a specified period of time (generally taken to be one year) and for a specified condition of water availability (generally taken to be a drought event of a specified return frequency).

**Load** Concentration times flow.

**Marsh** A frequently or continually inundated non-forested wetland characterized by emergent herbaceous vegetation adapted to saturated soil conditions.

**Microfiltration** A membrane separation process in which particles greater than about 20 nanometers in diameter are screened out of a liquid in which they are suspended.

**Microirrigation** The application of water directly to or very near to the soil surface in drops, small streams or sprays.

**Microorganism** A microscopic organism, including bacteria, protozoans, yeast, viruses and algae.

**Minimum Flow and Level (MFL)** The point at which further withdrawals would cause significant harm to the water resources/ecology of the area.

**Mobile Irrigation Laboratory (MIL)** A vehicle furnished with irrigation evaluation equipment which is used to carry out on-site evaluations of irrigation systems and to provide recommendations on improving irrigation efficiency.

**MODFLOW** A fine-scale model code created by the U.S. Geological Survey. The District uses it for subregional and groundwater modeling.

**National Geodetic Vertical Datum (NGVD)** A nationally established reference for elevation data.

**Natural Resources Conservation Service (NRCS)** An agency of the U.S. Department of Agriculture (USDA) that provides technical assistance for soil and water conservation, natural resource surveys and community resource protection. Formerly the U.S. Soil Conservation Service (SCS).

**Oligohaline** Term to characterize water with salinity of 0.5 to 5.0 parts per thousand, due to ocean-derived salts.

**Per Capita Use** Total use divided by the total population served.

**Potable Water** Water that is safe for human consumption. The maximum chloride concentration is 250 milligrams/liter.

**Public Water Supply (PWS)** Utilities that provide potable water for public use.

**Public Water Supply Demand** All potable water supplied by regional water treatment facilities with pumpage of 0.5 million gallons per day or more to all customers, not just residential.

**Reasonable-Beneficial Use** Use of water in such quantity as is necessary for economic and efficient utilization for a purpose and in a manner that is both reasonable and consistent with the public interest.

**Reclaimed Water** Water that has received at least secondary treatment and basic disinfection and is reused after flowing out of a domestic wastewater treatment facility.

**Recreational Self-Supplied Water Demand** The water used for landscape and golf course irrigation. The landscape subcategory includes water used for parks, cemeteries and other irrigation applications greater than 0.1 million gallons per day. The golf course subcategory includes those operations not supplied by a public water supply or regional reuse facility.

**Regional Water Supply Plan (RWSP)** Detailed water supply plan developed by the District under Section 373.0361, F.S., providing an evaluation of available water supply and projected demands, at the regional scale. The planning process projects future demand for 20 years and develops strategies to meet identified needs.

**Reservation of Water** (see Water Reservation).

**Reservoir** A man-made or natural water body used for water storage.

**Residential Self-Supplied Water Demand** (*Same as Domestic Self-Supplied Water Demand*) The water used by households whose primary source of water is private wells and water treatment facilities with pumpages of less than 0.5 million gallons per day.

**Retrofit** The replacement of existing equipment with equipment of higher efficiency.

**Retrofitting** The replacement of existing water fixtures, appliances and devices with more efficient fixtures, appliances and devices for the purpose of conservation.

**Reuse** The deliberate application of water that has received at least secondary treatment for a beneficial purpose, in compliance with the Florida Department of Environmental Protection and water management district rules, for a beneficial purpose.

**Reverse Osmosis (RO)** A membrane process for desalting water using applied pressure to drive the feedwater (source water) through a semipermeable membrane.

**Rolling (Moving) Average** The arithmetic average of a sequence of data within a data set moved and calculated sequentially to smooth the data and reveal trends (e.g., five-year rolling total phosphorus concentrations).

**Saline Water or Saltwater Interface** The hypothetical surface of chloride concentration between fresh water and seawater where the chloride concentration is 250 mg/L at each point on the surface.

**Saline Water or Saltwater Intrusion** This occurs when more dense saline water moves laterally inland from the seacoast, or moves vertically upward, to replace fresher water in an aquifer.

**Seawater** Water which has a chloride concentration equal to or greater than 19,000 milligrams per liter.

**Sedimentation** The action or process of forming or depositing sediment.

**Self-Supplied** The water used to satisfy a water need, not supplied by a public water supply utility.

**Serious Harm** The long-term loss of water resource functions, as addressed in Chapters 40E-21 and 40E-22, F.A.C., resulting from a change in surface or groundwater hydrology.

**Significant Harm** The temporary loss of water resource functions, which result from a change in surface or groundwater hydrology, that takes more than two years to recover, but which is considered less severe than serious harm. The specific water resource functions addressed by a MFL and the duration of the recovery period associated with significant harm are defined for each priority water body based on the MFL technical support document.

**Slough** A channel in which water moves sluggishly, or a place of deep muck, mud or mire. Sloughs are wetland habitats that serve as channels for water draining off surrounding uplands and/or wetlands.

**Storm Water** Surface water resulting from rainfall runoff that does not percolate into the ground or evaporate.

**Stormwater Treatment Area (STA)** A system of water quality treatment wetlands that use natural biological processes to reduce levels of nutrients and pollutants from surface water runoff.

**Subregional Groundwater Model** A computer model that is used to simulate impacts on a smaller scale than the regional models, such as effects within public water supply service areas and impacts of individual wellfields.

**Surface Water** Water that flows, falls or collects above the soil or substrate surface.

**Surface Water Improvement and Management (SWIM) Plan** A plan prepared pursuant to Chapter 373, F.S.



**Surficial Aquifer System (SAS)** Often the principal source of water for urban uses within certain areas of south Florida. This aquifer is unconfined, consisting of varying amounts of limestone and sediments that extend from the land surface to the top of an intermediate confining unit.

**Swamp** A frequently or continuously inundated forested wetland.

**Thermoelectric Self-Supplied Water Demand** The difference in the amount of water withdrawn by electric power generating facilities for cooling purposes and the water returned to the hydrologic system near the point of withdrawal.

**Total Maximum Daily Load (TMDL)** The level of loading to a body of water that will protect uses and maintain compliance with water quality standards (defined in the Clean Water Act).

**Trihalomethanes (THMs)** Any of several synthetic organic compounds formed when chlorine combines with organic materials in water during the disinfection process.

**Ultralow-volume Plumbing Fixtures** Water-conserving plumbing fixtures that meet the standards at a test pressure of 80 pounds per square inch (psi) listed below.

- Toilets - 1.6 gallons/flush
- Shower Heads - 2.5 gallons/minute
- Faucets - 2.0 gallons/minute

**Underground Injection Control (UIC)** A program required in each state by a provision of the *Safe Drinking Water Act (SDWA)* for the regulation of *Injection Wells*, including a permit system. An applicant must demonstrate that the well has no reasonable chance of adversely affecting the quality of an underground source of drinking water before a permit is issued.

**Upconing** Process by which saline water underlying fresh water in an aquifer rises upward into the freshwater zone as a result of pumping water from the freshwater zone.

**Uplands** An area with a hydrologic regime that is not sufficiently wet to support vegetation typically adapted to life in saturated soil conditions; nonwetland.

**Valued Ecosystem Component (VEC)** A resource-based management strategy similar to a program developed by the EPA as part of the National Estuary Program. For the purposes of this study, the VEC approach is based on the concept that management goals for the Northwest Fork of the Loxahatchee River can best be achieved by providing suitable environmental conditions that will support certain key species, or key groups of species, that inhabit the system.

**Wastewater** The waterborne discharge from residences, commercial buildings, industrial plants and institutions together with any groundwater, surface runoff or leachate that may be present.

**Water Budget** An accounting of total water use or projected water use for a given location or activity.

**Water Conservation** Reducing the demand for water through activities that alter water use practices, e.g., improving efficiency in water use, and reducing losses of water, waste of water and water use.

**Water Reservations** State law on water reservations, in Subsection 373.223(4), F.S., defines water reservations as follows: “The governing board or the department, by regulation, may reserve from use by permit applicants, water in such locations and quantities, and for such seasons of the year, as in its judgment may be required for the protection of fish and wildlife or the public health and safety. Such reservations shall be subject to periodic review and revision in the light of changed conditions. However, all presently existing legal uses of water shall be protected so long as such use is not contrary to the public interest.”

**Water Resource Development** The formulation and implementation of regional water resource management strategies, including the collection and evaluation of surface water and groundwater data; structural and nonstructural programs to protect and manage the water resources; the development of regional water resource implementation programs; the construction, operation and maintenance of major public works facilities to provide for flood control, surface and underground water storage and groundwater recharge augmentation; and related technical assistance to local governments and to government-owned and privately-owned water utilities.

**Watershed** The drainage area from which all surface water drains to a common receiving water body system.